

ART. XV.—*Some New Australian Formicidae.*

By J. CLARK, F.L.S.

(Entomologist to the National Museum of Victoria, Melbourne).

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Nine new species of ants belonging to the genera *Notostigma*, *Camponotus*, *Calomyrmex*, *Notoncus* and *Stigmatoceros*, all of the subfamily Formicinae, are described in this contribution. In addition Forel's description of *Camponotus* (*Tanaemyrmex*) *longinodis*, from the worker minor only, has been revised and supplemented by a description of the worker major and female.

All these genera excepting *Camponotus* are exclusively Australian. Perhaps the most interesting species in regard to distribution is *Notostigma sanguinea*, n. sp. The genus *Notostigma* was erected by the late Prof. Emery to contain two species of ants from North Queensland. At the same time he added a third from New South Wales. The species described is from Western Australia, extending the distribution considerably.

Of the five species of *Camponotus* described here the most interesting is undoubtedly *C.* (*Myrmosaulus*) *scutellus* from South-Western Australia. This is very closely related to *C.* (*M.*) *whitci* Wheeler from Central Australia. Dr. Wheeler placed his species tentatively in the subgenus *Myrmosphiuncta*, regarding it as probably belonging to the subgenus *Orthonotomyrmex* and allied to *C.* (*M.*) *mayri* from Madagascar. Emery later placed it in the subgenus *Myrmosaulus*, and I have for the present followed him, although the two species appear to be more correctly placed in *Orthonotomyrmex*. As pointed out by Wheeler, this is an old world group, and not known to be represented in Australia or Papua.

The species of the genus *Calomyrmex* are found, mainly, in the warmer districts of Australia, particularly in the interior. All are more or less metallic in colour, and run with great rapidity over the ground during the heat of the day. Usually they carry the gaster erect, giving them an odd appearance.

The genus *Notoncus* is well represented in most parts of the country. All have the shoulders more or less elevated. The genus *Stigmatoceros* contains small species having the epinotum furnished with four spines.

Sub-family FORMICINAE.

NOTOSTIGMA SANGUINEA, n. sp.

(Text-fig. 1, Nos. 1, 2.)

Worker major.—Length, 15-16.3 mm.

Blood red, antennae and legs lighter. Gaster black.

Subnitid. Gaster shining. Mandibles coarsely punctate. Head, thorax and node finely and densely reticulate, with some isolated, shallow punctures.

Hair reddish, erect, moderately abundant throughout, very short on the legs, none on the antennae. The middle and posterior tibia and tarsi with some longer bristle-like hairs. Pubescence hardly apparent except on the antennae.

Head broader than long, much broader behind than in front, the occipital border deeply concave, the sides strongly convex. Frontal carinae swerving outward in the middle, twice as long as their distance apart. Clypeus broad and convex, without a carina, the anterior border convex and feebly crenulate; there is a deep fovea at each side near the front. Eyes large, rather flat, placed near the posterior third of the sides. Scapes extending beyond the occipital border by one third of their length; second and third segments of the funiculus almost twice as long as the first, the others subequal. Mandibles large, triangular, armed with six or seven irregular teeth. Thorax twice as long as broad. Pronotum almost twice as broad as long, strongly convex on the sides. Mesonotum slightly longer than broad, feebly convex laterally; in profile the mesonotum and pronotum form an even arch. There is a wide, but not deep, constriction between the mesonotum and epinotum, the spiracles large, placed on the dorsal surface of the constriction. Epinotum as long as broad, strongly convex laterally; in profile the dorsum almost straight, the declivity abrupt, as long as the dorsum, subbordered above and on the sides. Node as long as broad in front, all four sides convex; in profile twice as high as long, inclined forward, the anterior face straight, the dorsum and posterior face united in a curve. Gaster longer than broad. Legs long and slender.

Worker minor.—Length, 11-14 mm.

Colour, sculpture and pilosity as in the major.

Head slightly longer than broad, as broad in front as behind, the occipital border produced as a short narrow neck, sides convex. Clypeus and frontal carinae as in the major. Eyes large and convex, at the posterior third of the sides. Scapes passing the occipital border by two-thirds of their length; second and third segments of the funiculus almost twice as long as the first. Mandibles armed with six strong, sharp teeth. Thorax fully three times longer than broad. Pronotum one-fifth longer than broad, twice as broad behind as in front. Mesonotum almost circular. The constriction between the mesonotum and epinotum very wide, the spiracles large, placed well on top of the dorsum. Epinotum one-third longer than broad; in profile feebly convex longitudinally, the declivity abrupt, almost at a right angle, rounded into the above. Node twice as long as broad, broader in front than behind, the sides and anterior border convex; in profile as high as long, the anterior face straight, inclined forward, the dorsum and posterior face united in a curve. The rest as in the major.

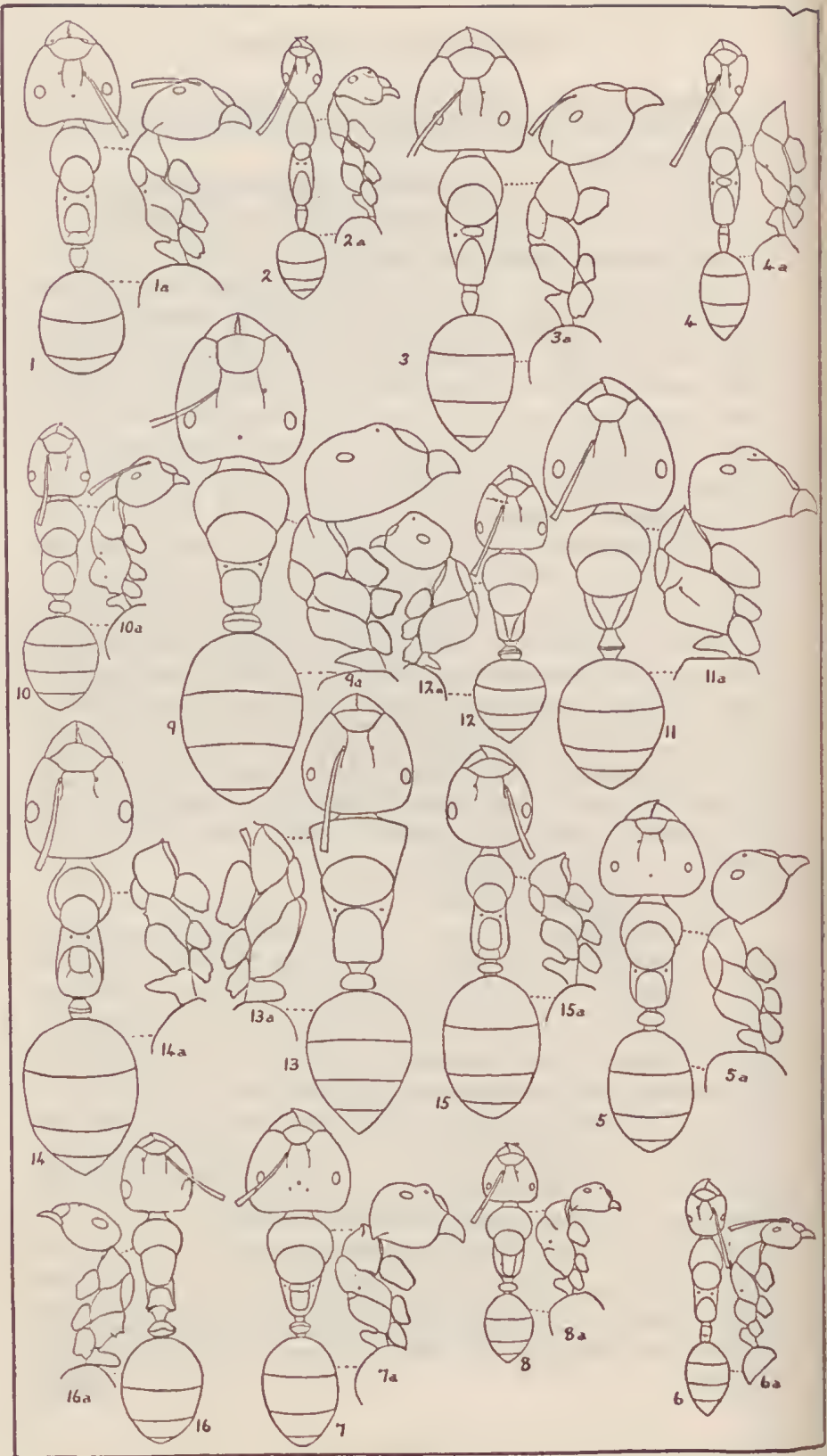


FIG. 1.

Habitat.—Western Australia: Perth and Ludlow (J. Clark).

There are several grades between the largest and smallest workers, but they differ only in the size of the head. This species is readily distinguished from the other three species in the genus by its blood-red colour.

A large nest of this species was found under a log near Ludlow. The soldiers are very timid, and retreat into the nest on the least alarm. The workers may be seen frequently on tree-trunks during the day.

CAMPONOTUS (TANAEMYRMEX) LONGINODIS Forel.

Camponotus (Dinomyrmex) subnitidus Mayr var. *longinodis*

Forel, Arkiv. for Zool., ix. (16), p. 96, 1915. ♂

(Text-fig. 1, Nos. 3, 4.)

Worker major.—Length, 16.5-18 mm.

Head and thorax brown. Mandibles and front of face black. Funiculus, legs and gaster castaneous.

Subopaque. Mandibles coarsely punctate. Clypeus and front of the face punctate-reticulate, the rest of the head, thorax, node and gaster microscopically reticulate.

Hair reddish, long and erect, rather sparse throughout. Tibia with two rows of short, sharp, bristles. Pubescence not apparent.

Head as broad as long, broader behind than in front, the occipital border straight, or very feebly concave, the sides convex. Frontal carinae diverging slightly outward behind, broadest at the middle. Clypeus broad, feebly convex, subcarinate, the anterior border produced, convex, there is a deep fovea at each side near the middle. Eyes large, placed at the posterior third of the sides. Scapes extending beyond the occipital border by almost twice their thickness; second and third segments of the funiculus of equal length, longer than the first, the others subequal. Mandibles

FIG. 1.

1.	<i>Notostigma sanguinea</i> , n. sp.	Major, dorsal view: a, in profile.
2.		Minor, " " a, " "
3.	<i>Camponotus (Tanaemyrmex) longinodis</i> , Forel	Major, " " a, " "
4.		Minor, " " a, " "
5.	<i>Camponotus (Myrmosaulus) versicolor</i> , n. sp.	Major, " " a, " "
6.		Minor, " " a, " "
7.	<i>Camponotus (Tanaemyrmex) postcornutus</i> , n. sp.	Major, " " a, " "
8.		Minor, " " a, " "
9.	<i>Camponotus (Myrmosaulus) scutellus</i> , n. sp.	Major, " " a, " "
10.		Minor, " " a, " "
11.	<i>Camponotus (Myrmophyma) tristis</i> , n. sp.	Major, " " a, " "
12.		Minor, " " a, " "
13.	<i>Calomyrmex glauerti</i> , n. sp.	Worker " " a, " "
14.	<i>Notoncus hickmani</i> , n. sp.	Worker " " a, " "
15.	<i>Notoncus rotundiceps</i> , n. sp.	Worker " " a, " "
16.	<i>Stigmacros reticulata</i> , n. sp.	Worker " " a, " "

large and triangular, armed with seven teeth. Thorax two and one quarter times longer than broad. Pronotum almost twice as broad as long, strongly convex. Mesonotum circular, convex above. Metanotum as a distinct raised segment, narrow, twice as broad as long. Epinotum almost twice as long as broad; in profile the dorsum feebly depressed in the middle, the declivity short, at an obtuse angle, the boundary between the two faces hardly apparent. The whole thorax evenly convex. Node one and three quarter times longer than broad, parallel, the anterior border convex; in profile higher than long, the anterior face straight and vertical for half its length, then abruptly inclined backward, the posterior face feebly convex, meeting the anterior face above, forming a sharp, pointed edge. The top is convex laterally, in *subnitidus* it is concave. Gaster longer than broad. Legs long and robust.

Worker minor.—Length, 13-15 mm.

Colour, sculpture and pilosity as in the major.

Head elongate, one-third longer than broad, three times broader in front than behind, the sides feebly convex. Frontal carinae and clypeus as in the major. Eyes large and convex, placed at the posterior third of the sides. Scapes extending beyond the occiput by two thirds of their length. Thorax similar but much more slender. Node two and three quarter times longer than broad, the anterior border convex, the sides parallel; in profile slightly longer than high, the anterior face very short, vertical, the dorsum straight, inclined upward and backward, forming a sharp edge at the junction with the posterior face, the latter feebly convex. Gaster much longer than broad. Legs long and slender.

Female.—Length, 20 mm.

Colour, sculpture and pilosity as in the worker major.

Head very slightly longer than broad, the occipital border and sides straight, or very feebly convex, almost parallel, the occipital angles bluntly rounded. Frontal carinae and clypeus as in the major. Eyes large, rather flat. Ocelli prominent. Scapes extending beyond the occipital border by one fourth of their length. Mesonotum large, flattened on top, parapsidal furrows feebly impressed. Scutellum large, much broader in front than behind, Epinotum short, rounded into the declivity. Node and gaster similar to the major. Legs longer and more slender.

Habitat.—North Queensland: Cape York (W. B. Barnard).

The worker minor corresponds well with the short description given by Forel. The differences in the major and media workers are too great, in my opinion, to regard this as a variety of *subnitidus*. All grades, from the largest to the smallest workers, are found. These represent at least five intermediates, but they differ only in the size of the head. Forel described only the worker minor.

CAMPONOTUS (TANAEMYRMEX) POSTCORNUTUS, n. sp.

(Text-fig. 1, Nos. 7, 8.)

Worker major.—Length, 13-14.5 mm.

Blood red. Gaster black. Mandibles and scapes brown.

Shining. Mandibles coarsely punctate. Head, thorax and node microscopically reticulate, the occipital border smooth and polished. Gaster microscopically striate transversely. The whole body interspersed with fine shallow punctures.

Hair reddish, long and erect, very sparse throughout, except on the apical segments of the gaster. Pubescence very fine and sparse, noticeable only on the antennae and legs. The tibiae, and tarsi have two rows of stout sharp bristles on the under side.

Head large, much broader than long, broadest at the eyes, the occipital border truncate, straight, or very feebly concave, the sides strongly convex, the inferior posterior angles greatly produced backward and slightly outward as short blunt horns. Frontal carinae short, diverging widely behind, there is a well defined longitudinal groove between them extending to the anterior ocellus, where it is deepest. Clypeus broad, convex, feebly carinate, the anterior border produced, straight in the middle; there is a moderately deep fovea on each side near the middle. Eyes large, rather flat, placed at the posterior third of the sides. Ocelli very small, the anterior largest. Scapes extending beyond the occipital border by barely twice their thickness, second and third segments of the funiculus of equal length, longer than the first. Mandibles broad, armed with six large sharp teeth. Thorax one and one third times longer than broad. Pronotum three times broader than long, convex in front and on the sides, the anterior border sharply margined, the margin reflexed, extending to the anterior third of the sides. Mesonotum broader than long, convex above. The metanotum shown as a distinct segment, the sutures rather feeble. Epinotum longer than broad, strongly convex laterally; in profile the dorsum and declivity united in an even arch. The whole thorax is strongly convex longitudinally, the mesonotum sharply marginate below. Node fully twice as broad as long, all four sides convex, the dorsum contracting to a bluntly rounded top edge which is sharply notched in the middle; in profile barely twice as high as long, bluntly pointed above. Gaster longer than broad. Legs robust.

Worker minor.—Length, 8.5-10 mm.

Colour, sculpture and pilosity as in the major.

Head slightly broader than long, broader behind than in front, the inferior posterior angles sharp, not strongly produced as in the major. Clypeus more sharply carinate. Scapes extending beyond the occipital border by half their length. Pronotum and mesonotum similar. Metanotum not defined. Epinotum slender, almost sharp on top. Node thicker, rounded, not notched on top; in profile it is convex above. The rest as in the major.

Habitat.—Western Australia: Bungulla (T. Greaves; J. Clark).

The shape of the head and thorax separate this from all the other Australian species. The major and minor workers are found hunting on the ground and on tree trunks, all day long. They are very active and pugnacious.

CAMPONOTUS (MYRMOSAULUS) VERSICOLOR, n. sp.

Worker major.—Length, 14·8-16 mm.

Length, 14·8-16 mm.

Black. Cheeks, funiculus and first two segments of the gaster blood red. Terminal segments of the tarsi brown.

Subopaque. Mandibles finely and densely striate. Head, thorax and gaster microscopically reticulate and finely punctate.

Hair yellow, very sparse throughout, except on the clypeus and under side of the head, where they are rather long and abundant. Pubescence not apparent.

Head almost one third broader than long, the occipital border concave, the sides strongly convex. Frontal carinae diverging slightly behind, with a sharp longitudinal groove between them, extending to, and including, the anterior ocellus. Clypeus broad and convex, without traces of a carina, the anterior border convex, hardly produced; there is a deep fovea on each side near the middle. Eyes circular; rather flat. The anterior ocellus only present. Scapes extending beyond the occipital border by about twice their thickness; second and third segments of the funiculus of equal length, longer than the first. Mandibles large, armed with six large sharp teeth. Thorax barely twice as long as broad. Pronotum four times broader than long, strongly convex in front and on the sides. Mesonotum circular, the dorsum convex in front, flattened behind, with indications of a longitudinal groove in front. A deep, but not wide, constriction between the mesonotum and epinotum, the latter longer than broad; in profile convex from the anterior border to the bottom of the declivity, without traces of a boundary between them. Node twice as broad as long, all four sides and the dorsum convex; in profile one third higher than long, the dorsum convex. Gaster one fourth longer than broad. Legs long and robust.

Worker minor.—Length, 8·5-10 mm.

Colour and sculpture as in the major. Pubescence much more abundant, very fine and adpressed.

Head longer than broad, the occipital border strongly convex, the sides straight, parallel. Clypeus distinctly carinate. Scapes passing the occipital border by more than half their length. Eyes large and convex. Mandibles with eight to nine large sharp teeth. Thorax similar but much more slender. Node one fourth longer than broad, the anterior and posterior faces straight, the sides convex; in profile as high as long, the anterior

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face straight, vertical, the dorsum straight, flat, the posterior face convex, rounded into the dorsum. Legs long and slender. The rest as in the major.

Habitat.—Western Australia: Emu Rocks (H. Reynolds).

This very distinct species is not near any other known to me. A large series of both forms was collected by Mr. Reynolds at Emu Rocks, on the Rabbit-proof Fence, East of Ongerup.

CAMPONOTUS (MYRMOSAULUS) SCUTELLUS, n. sp.

(Text-fig 1, Nos. 9, 10.)

Worker major.—Length, 9.5-11.3 mm.

Brown. Dorsum of pronotum blackish brown. Gaster black.

Opaque. Mandibles coarsely striate-punctate. Head, thorax and node reticulate-punctate. Gaster microscopically reticulate.

Hair reddish, erect, very long and abundant on the thorax and gaster, shorter on the head and legs. Pubescence yellow, very short and sparse throughout.

Head as long as broad, broadest just in front of the eyes, the occipital border concave, the sides strongly convex, the posterior angles rounded. Frontal carinae diverging strongly behind, with a longitudinal groove between them. Clypeus broad and convex, without a carina, the anterior border produced, concave in the middle, with a deep depression at each side near the middle. Eyes large, flat, placed at the posterior third of the sides. Scapes just reach the occipital border; first segment of the funiculus as long as the second, the others subequal to the apical. Mandibles large, triangular, armed with six large, sharp teeth. Thorax one and a half times longer than broad. Pronotum fully twice as broad as long, strongly convex in front and on the sides, subbordered. Mesonotum one third broader than long, convex above. There is a strong constriction between the mesonotum and epinotum, the latter as broad as long, the posterior border straight; in profile much lower than the mesonotum, the dorsum straight, the posterior half submarginate, the declivity vertical, feebly concave near the bottom, longer than the dorsum, submarginate on the sides and above. Node scale-like, almost four times broader than long, the anterior face feebly concave, posterior face and sides convex, the dorsum sharply pointed, convex laterally; in profile somewhat wedge shaped. Gaster much longer than broad. Legs short and robust.

Worker minor.—Length, 5-6 mm.

Colour as in the major. Sculpture coarser, stronger and more densely punctate. Pilosity similar but not so abundant.

Head as long as broad, broadest just in front of the eyes, the occipital border concave, the sides convex. Clypeus carinate. There is a distinct carina between the frontal carinae. Eyes large, globular. Scapes extending beyond the occipital border by barely half their length. Thorax twice as long as broad. The

pronotum not so distinctly subbordered. The constriction between the mesonotum and epinotum strong but not so sharply defined. Epinotum more convex laterally, the posterior border not clearly defined; in profile the declivity vertical, rounded into the dorsum. Node thick, twice as broad as long, the anterior border straight, or feebly concave, the sides, posterior border and dorsum convex; in profile twice as high as long, parallel, the dorsum convex. Legs robust. The rest as in the worker major.

Habitat.—Western Australia: Tanmin (J. Clark); Emu Rocks (H. Reynolds); Bungulla (T. Greaves); Merredin (L. J. Newman).

From the description this species is near *C. (M.) whitei* Wheeler, from Central Australia.

CAMPONOTUS (MYRMOPHYMA) TRISTIS, n. sp.

(Text-fig. 1, Nos. 11, 12.)

Worker major.—Length, 8-9 mm.

Black. Legs brownish black. Apical segments of the gaster very narrowly edged with yellow.

Opaque. Very finely and densely reticulate. Mandibles coarsely striate-punctate.

Hair yellowish, erect, very sparse throughout. Pubescence yellow, fine and adpressed, very sparse throughout.

Head broader than long, broadest at the eyes, the occipital border concave, the sides strongly convex, the posterior angles rounded. Frontal carinae diverging strongly outward behind, with a sharp longitudinal groove between them. Clypeus broad, subcarinate, produced and feebly convex in front; there is a deep depression on each side in front. Eyes large and flat, placed at the posterior third of the sides. The anterior ocellus represented by a large deep puncture, the posterior pair by very feeble punctures. Scapes extending beyond the occipital border by twice their thickness; second and third segments of the funiculus of equal length, one third shorter than the first. Mandibles large, triangular, armed with five to six strong sharp teeth. Thorax one and a half times longer than broad. Pronotum twice as broad as long, strongly convex in front and on the sides, the anterior border margined and slightly raised in front, submarginate on the sides. Mesonotum fully one third broader than long, convex above, submarginate on the sides, much broader in front than behind. Epinotum as long as broad in front, wedge shaped, the posterior ending in a sharp point; in profile the declivity twice as long as the dorsum, straight and vertical, rounded into the dorsum. Node scale-like, the top edge sharp, convex laterally; in profile the anterior face convex, the posterior straight. Gaster longer than broad. Legs robust.

Worker minor.—Length, 5-6 mm.

Colour, sculpture and pilosity similar to the worker.

Head as long as broad, the occipital border straight, the sides convex. Scapes passing the occipital border by almost half their length. Thorax similar to that of the major, but much more slender. The declivity three times as long as the dorsum of the epinotum. Node a little more slender, the top edge, laterally, bluntly rounded. The rest as in the worker major.

Habitat.—Western Australia: Eradu (J. Clark).

Apparently near *C. (M.) erae* Forel from Queensland.

CALOMYRMEX GLAUERTI, n. sp.

(Text-fig. 1, No. 13.)

Worker.—Length, 9.5-10 mm.

Black, with a faint bronze sheen.

Opaque. Mandibles shining, coarsely striate-punctate on the apical third. Head, thorax and node very densely and finely punctate. Antennae, legs and gaster microscopically punctate.

Hair whitish, erect, long and very abundant, particularly on the antennae, legs and gaster. Pubescence white on the antennae and coxae, golden red on the gaster, where it forms a dense clothing completely hiding the sculpture.

Head very slightly broader than long, broader behind than in front, the occipital border and sides convex, the angles bluntly rounded. Frontal carinae diverging, twice as wide behind as in front. Clypeus convex above, the anterior border straight. Eyes convex, placed at the posterior third of the sides. Scapes of the antennae extending beyond the occipital border by almost half their length; first segment of the funiculus fully one fourth longer than the second, the others subequal. Mandibles armed with five sharp teeth. Thorax fully one and a half times longer than broad. Pronotum two and three-quarter times broader than long, flattened laterally, convex and submarginate in front, and on the sides, the anterior angles blunt. Mesonotum much broader than long, transversely oval, submarginate in front and on the sides; in front raised above the level of the pronotum. A strong constriction between the mesonotum and epinotum, the latter truncate and raised higher than the mesonotum in front, longer than broad, flattened laterally; in profile inclined downward behind, the declivity short and indistinct. Node thick, one and a half times broader than long, broader behind than in front, convex laterally above; in profile the anterior face short and vertical, the posterior face feebly convex, twice as high as the anterior face, the dorsum straight, inclined forward. Gaster longer than broad, much broader in front than behind. Legs long and slender.

Habitat.—Western Australia: Murchison River (L. Glaucert).

Type in the Western Australian Museum, Perth.

This species is distinct from all the other known forms, and is readily distinguished by its coat of long white hair and the bright golden pubescence on the gaster. The colour is much like that of *C. purpureus* Mayr var. *eremophila* Wheeler, from Central Australia.

NOTONCUS HICKMANI, n. sp.

(Text-fig. 1, No. 14.)

Worker.—Length, 4.5-5.3 mm.

Yellowish red. Legs lighter. Gaster blackish brown.

Shining. Mandibles finely striate. Clypeus longitudinally striate in the middle, obliquely so on the sides. The striae are longitudinal between the frontal carinae, curving outward behind and encircling the antennal fovea in front. Behind the eyes the head is smooth and shining, with faint indications of striae. Pronotum irregularly striate-rugose, fine and longitudinal in the centre, coarser and diverging outward behind on the sides. Mesonotum smooth. Epinotum finely and transversely striate behind, the striae diverging obliquely on the sides. Node and gaster smooth.

Hair yellow, erect, rather fine and abundant throughout. Pubescence very fine and sparse, more abundant on the gaster than elsewhere.

Head slightly longer than broad, convex behind and on the sides. Frontal carinae short, almost parallel, very slightly longer than their distance apart. Clypeus broad and convex, projecting and rounded in front. Eyes large and convex, placed behind the centre of the sides. Scapes extending beyond the occipital border by one sixth of their length; first segment of the funiculus twice as long as the second. Mandibles large, armed with eight large sharp teeth. Thorax twice as long as broad. Pronotum twice as broad as long, the dorsum depressed longitudinally in the middle, the anterior angles and sides bluntly raised. Mesonotum rather small, wider in front than behind, strongly convex above. A wide constriction between the mesonotum and epinotum, the spiracles large, placed on the middle of the constriction. Epinotum short, longer than broad; in profile the dorsum straight, the declivity straight and at an obtuse angle, much longer than the dorsum. Node scale-like, fully three times broader than long, the top edge sharp, bluntly pointed laterally; in profile wedge-shaped, bluntly pointed above. Gaster longer than broad. Legs slender.

Female.—Length, 5.5 mm.

Colour and pilosity as in the worker. Sculpture a little coarser. Eyes larger. Ocelli prominent. Pronotum short, feebly shouldered. Mesonotum large, parapsidal furrows deeply impressed. Scutellum large and convex, truncate behind. Epinotal declivity three times longer than the dorsum. Node distinctly concave, or feebly bidentate, above. Wings missing. The rest as in the worker.

Habitat.—Tasmania: Trevallyn (V. V. Hickman).

This species, the first of the genus to be recorded from Tasmania, is dedicated to Mr. Hickman, the Tasmanian Arachnologist, to whom I am indebted for many rare species of ants from that State.

NOTONCUS ROTUNDICEPS, n. sp.

(Text-fig. 1, No. 15.)

Worker.—Length, 3·8-4·5 mm.

Castaneous. Mandibles, clypeus, front of the face, antennae and legs lighter. Head and gaster brown.

Shining. Mandibles finely striate and punctate. Clypeus longitudinally striate in the middle. The striae longitudinal between the frontal carinae, curving outward behind and encircling the antennal fovea as in *N. hickmani*. Head behind the eyes smooth, with some scattered piligerous punctures. Pronotum and mesonotum smooth, with scattered piligerous punctures. Epinotum transversely striate, the striae descending obliquely on the sides. Node and gaster smooth and shining.

Hair yellowish, long and erect, very fine and abundant throughout. Pubescence very fine and sparse, noticeable only on the gaster.

Head very slightly longer than broad, strongly convex behind and on the sides. Frontal carinae parallel, as long as their distance apart in front. Clypeus convex, the anterior border produced, straight in the middle. Eyes convex, placed at the posterior third of the sides. Scapes extending beyond the occipital border by barely one fourth of their length; first segment of the funiculus twice as long as the second. Mandibles armed with five strong sharp teeth. Thorax fully twice as long as broad. Pronotum one and a half times as broad as long, strongly convex in front and on the sides, the dorsum depressed longitudinally in the middle. Mesonotum circular, convex above. The constriction between the mesonotum and epinotum deep and wide, the spiracles placed on top at each side. Epinotum longer than broad, convex laterally; in profile the dorsum feebly convex, the declivity straight, at an obtuse angle, slightly longer than the dorsum, the sides and top subbordered. Node scale-like, barely three times broader than long, convex laterally; in profile three times higher than long, parallel, bluntly pointed above. Gaster much longer than broad. Legs long and slender.

Habitat.—Western Australia: Albany (J. Clark).

Near *N. hickmani*, but smaller and more slender and differently coloured.

STIGMACROS RETICULATA, n. sp.

(Text-fig. 1, No. 16.)

Worker.—Length, 2·2-2·6 mm.

Black. Mandibles, antennae, except the apical segments, tibia and tarsi testaceous. Apical segments of the antennae and the femora brown.

Subopaque. Gaster smooth and shining. Head, thorax and node finely and densely reticulate.

Hair yellow, very short and sparse throughout. Pubescence very fine and adpressed, confined to the antennae and legs.

Head slightly longer than broad, the occipital border straight, the sides convex. Frontal carinae short, flattened, parallel. Clypeus convex above, the anterior border convex and feebly emarginate in the middle. Eyes large, rather flat, placed at the posterior third of the sides. Scapes extending beyond the occipital border by barely one fourth of their length; first segment of the funiculus one third longer than the second. Mandibles armed with five sharp irregular teeth. Thorax one and three quarter times longer than broad. Pronotum twice as broad as long, strongly convex in front and on the sides. Mesonotum longer than broad, broader in front than behind, convex above. Epinotum one third broader than long, the posterior border concave, the angles bluntly produced; in profile the declivity abrupt, feebly concave, longer than the dorsum, the top angles produced, there is a long, sharp spine on each side at the superior third, longer than broad at the base, directed backward and outward. Node scale-like, four times broader than long, convex in front, straight behind, the dorsum bluntly pointed, feebly concave in the middle; in profile four times higher than long, the anterior face convex, the posterior feebly concave. Gaster longer than broad, concave in front below. Legs long and slender.

Female.—Length, 3.3 mm.

Closely resembles the worker, but differs in the following particulars. The whole of the legs and coxae testaceous, the mandibles, antennae and node darker. Eyes larger, more convex. Ocelli large. Mesonotum large, with a distinct longitudinal carina in the middle, parapsidal furrows distinct. Scutellum large, broader in front than behind. Epinotum fully twice as broad as long, the spines much stronger. Node more distinctly notched on top. Wings missing.

Habitat.—Western Australia: Perth (J. Clark).

Near *S. acmula* Forel, but is readily distinguished by its larger size, colour, sculpture and the larger spines on the epinotal declivity.